

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON**

UNITED STATES OF AMERICA,

Plaintiff

v.

**SHELL PIPELINE COMPANY LP fka
EQUILON PIPELINE COMPANY LLC
and OLYMPIC PIPE LINE COMPANY,**

Defendants.

Civil Action No. CV02-1178R

**APPENDIX A TO THE CONSENT
DECREE BETWEEN THE UNITED
STATES OF AMERICA AND
SHELL PIPELINE COMPANY LP
fka EQUILON PIPELINE
COMPANY LLC (OTHER RELIEF)**

I. DEFINITIONS

1. The terms used in this Appendix shall have the meaning assigned to them in Paragraph 4 of the Consent Decree to which this Appendix is attached. Whenever terms listed below are used in this Appendix or in the Exhibits attached to this Appendix, the following definitions shall apply:

- a. "AGA" shall mean the American Gas Association.
- b. "AGA Project PR-3-805" shall mean an AGA publication entitled "A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe," December, 1989, a copy of which is attached to, and incorporated into this Appendix as Exhibit 1.

APPENDIX A - CV02-1178R
Draft - December 27, 2002

United States Department of Justice
Post Office Box 7611
Washington, D.C. 20044-7611
Telephone: 202-305-0300

- 1 c. "Analyzed ILI Data" shall mean a final written report from an ILI Vendor or
2 other qualified employee or agent of Shell analyzing raw data from an ILI to
3 identify suspected or predicted defects and anomalies.
- 4 d. "API" shall mean American Petroleum Institute.
- 5 e. "API RP 1110" shall mean a document entitled "Pressure Testing of Liquid
6 Petroleum Pipelines," API Recommended Practice 1110, 4th Edition,
7 March, 1997, a copy of which is attached to, and incorporated into this Appendix
8 as Exhibit 2.
- 9 f. "API 1161" shall mean a document entitled "Guidance Document for the
10 Qualification of Liquid Pipeline Operations and Maintenance Personnel,"
11 API Publication 1161, 1st Edition, August, 2000, a copy of which is attached to,
12 and incorporated into this Appendix as Exhibit 3.
- 13 g. "API 1130" shall mean a document entitled "Computational Pipeline
14 Monitoring," API 1130, First Edition, October, 1995, a copy of which is attached
15 to, and incorporated into this Appendix as Exhibit 4.
- 16 h. "ASME" shall mean the American Society of Mechanical Engineers.
- 17 i. "ASME B31.4-2002" shall mean a document entitled "Pipeline Transportation
18 Systems for Liquid Hydrocarbons and Other Liquids, ASME Code for Pressure
19 Piping," 2002 edition, a copy of which is attached to, and incorporated into this
20 Appendix as Exhibit 5.
- 21 j. "ASME B31G-1991" shall mean a document entitled "Manual for Determining
22 the Remaining Strength of Corroded Pipelines, A Supplement to ASME B31
23 Code for Pressure Piping," 1991 edition, a copy of which is attached to, and
24 incorporated into this Appendix as Exhibit 6.

- 1 k. “Cathodic Protection System” shall mean a system to prevent the corrosion of a
2 metal surface by making that surface the cathode of an electrochemical cell with
3 the use of impressed current or galvanic anodes.
- 4 l. “Commercially Navigable Waterway” shall mean a commercially navigable
5 waterway as defined and identified pursuant to 49 C.F.R. §§ 195.450, 195.452.
- 6 m. “EFRD” shall mean an emergency flow restricting device that either is a check
7 valve (a type of valve that permits fluid flow in one direction only), or a valve
8 that can be remotely operated from another monitoring or control location,
9 including an existing valve that will be converted to a remotely operated valve
10 that can be operated from another monitoring or control location.
- 11 n. “Engineering Judgment” shall mean judgment based on the application of
12 scientific and mathematical principles to the design, construction, operation, and
13 maintenance of pipeline systems, with such judgment exercised by a suitably
14 qualified person.
- 15 o. “Excavation Activity” shall mean digging, deep plowing, blasting, boring,
16 directional drilling, other trench-less excavation methods, clearing, grading,
17 ditching, tunneling, dredging, back-filling, the removal of above-ground
18 structures by either explosive or mechanical means, and other earth moving
19 operations.
- 20 p. “Excavator” shall mean any person or entity engaging in Excavation Activity.
- 21 q. “Exposed Pipe” shall mean any pipe at or above any body of water or at or above
22 ground level, unless (1) the pipe was intentionally designed and intentionally
23 installed above ground (a) to traverse land; (b) as an overhead crossing of a body
24 of water, a highway, a railroad, or similar structure; (c) as a span over a ditch or
25 gully; (d) as part of a scraper trap or block valve; or (e) within a fenced area
26 owned, leased, or maintained by Shell constituting a pump station, tank farm,

metering facility, delivery facility, or junction; and (2) the pipe is protected from the forces exerted by the anticipated loads.

- r. “High Consequence Area” shall mean a high consequence area as defined and identified pursuant to 49 C.F.R. §§ 195.450, 195.452.
- s. “ILI” shall mean in-line inspection.
- t. “ILI Vendor” shall mean a vendor in the business of performing ILIs of hazardous liquid pipelines using ILI tools that generate data regarding suspected defects on hazardous liquid pipelines and providing analysis of the data.
- u. “Independent Monitoring Contractor” or “IMC” shall mean the Independent Monitoring Contractor selected pursuant to Section XIV of this Appendix.
- v. “Metal Loss Tool” shall mean a high resolution magnetic flux leakage tool or an alternative tool selected pursuant to Paragraph 5 of this Appendix.
- w. “MOP” shall mean maximum operating pressure.
- x. “NACE” shall mean National Association of Corrosion Engineers.
- y. “NACE RP0169-2002” shall mean a document entitled “Standard Recommended Practice: Control of External Corrosion on Underground or Submerged Metallic Piping Systems,” NACE RP0169-2002, originally approved in 1969, reaffirmed in 2002, a copy of which is attached to, and incorporated into this Appendix as Exhibit 7.
- z. “One-Call System” shall mean a notification system through which a person can notify owners and operators of underground lines or facilities of proposed excavations.
- aa. “Pipeline” shall mean all main transmission line portions of Shell Pipeline Systems comprising line pipe.

- 1 bb. “Responsible Corporate Officer” shall mean the person or persons designated by
2 Shell to perform relevant decision-making functions, and who has authority to
3 sign documents on behalf of Shell with respect to the Decree.
- 4 cc. “Supervisory Control and Data Acquisition (SCADA) System” shall mean a
5 computer-based communications system that gathers, processes, and displays
6 data from field instrumentation and allows an operations controller to execute
7 control functions;
- 8 dd. “Semester” shall mean either the period from January 1 through June 30 of any
9 calendar year, or the period from July 1 through December 31 of any calendar
10 year.
- 11 ee. “Shallow Cover Pipe” shall mean any portion of the Pipeline that crosses under a
12 Commercially Navigable Waterway and which has a depth of cover of less than
13 24 inches.
- 14 ff. “Shell Pipeline Systems” shall mean the pipeline systems commonly referred to
15 as the East Line Products, North Line Products, Chase Kansas Products, Chase
16 Colorado Products, and Orion Products pipeline systems that are used for
17 transporting petroleum products, and include approximately 2139 miles of
18 pipeline running in the States of Texas, Oklahoma, Colorado, Kansas, Ohio,
19 Illinois, and Indiana and associated structures and buildings used for operations
20 and administration, control equipment, pumps, valves, breakout storage tanks,
21 and other equipment used in the operation of the pipeline systems, and any like
22 additions to the Shell Pipeline Systems made during the pendency of this Consent
23 Decree. The term does not include facilities such as refineries, lube plants, and
24 marine and distribution terminals that are connected to, or associated with the
25 pipelines but which perform separate functions such as storage or blending.
- 26 gg. “SMYS” shall mean the specified minimum yield strength.

hh. "Top-Side of the Pipeline" shall mean the portion of the Pipeline above the 8:00 o'clock and 4:00 o'clock positions on any part of the Pipeline.

II. CONSTRUCTION OF THIS APPENDIX

2. If compliance with applicable provisions of ASME, NACE, AGA, or API publications would prevent compliance with this Consent Decree, Shell shall comply with this Consent Decree. If compliance with this Consent Decree or with applicable provisions of ASME, NACE, AGA, or API publications would prevent compliance with applicable laws and regulations, Shell shall comply with applicable laws and regulations. All references to ASME, NACE, AGA, or API publications in this Appendix shall be construed to be specific to the documents incorporated by reference herein and attached as Exhibits to this Appendix, and no such references shall be interpreted to include, or require compliance with, any modifications or amendments to any such documents subsequent to the versions attached as Exhibits to this Appendix.

III. ILIs, EVALUATIONS, EXCAVATIONS, AND RESPONSE REQUIREMENTS

A. Pipelines Covered

3. The Pipeline consists of the segments described in the table below.

Pipeline System	Segment	Nominal Pipe Size	Length (miles)
Chase Kansas Products	Sunset-Eldorado	8"	2.0
Chase Kansas Products	Eldorado-Hudson	10"	107.0
Chase Kansas Products	Hudson-Scott City	10"	146.0
Chase Colorado Products	Scott City-Aurora	10"	228.0
Chase Colorado Products	Aurora to DIA	10"	17.7
Chase Colorado Products	Sunset to Eldorado	16"	2.0
Chase Colorado Products	Eldorado to MP44	10"	44.0
Chase Colorado Products	MP44 to Scott City	12"	185.0
East Line Products	Wood River to	12"	225.0
East Line Products	Zionsville to Lima	12"	127.0
North Line Products	Wood River to Peotone	14"	220.0

North Line Products	Peotone to Argo	14"	32.0
North Line Products	Peotone to East Chicago	14"	28.0
North Line Products	Argo to Des Plaines	14"	27.0
Orion Products	East Houston to	16"	174.8
Orion Products	Corsicana to Frost	20"	23.0
Orion Products	Frost to Clyde	16"	163.0
Orion Products	Clyde to Abilene	14"	10.0
Orion Products	Abilene to Tye	16"	8.0
Orion Products	Tye to Stanton	16"	116.0
Orion Products	Stanton to Midland	14"	16.0
Orion Products	Midland to Odessa	12"	25.0
Orion Products	Frost to Underwood	12"	69.5
Orion Products	Underwood to Henrietta	12"	89.1
Orion Products	Henrietta to Duncan	12"	48.5
Orion Products	Underwood to Pride	12"	3.0
Orion Products	Pride to Aledo	6"	2.0

B. ILIs Using Both Deformation and Metal Loss Tools

1. General Requirements

4. For each ILI required by this Appendix, Shell shall ensure that each ILI Vendor calibrates the inspection tool in accordance with applicable ILI Vendor standards and that each ILI Vendor provides verification of the calibration to Shell.
5. Whenever Shell uses a magnetic flux leakage tool for an ILI required by this Appendix, Shell shall use a high resolution magnetic flux leakage tool. Shell may use a Metal Loss Tool other than a magnetic flux leakage tool if:
 - a. The alternative Metal Loss Tool is more appropriate, in the exercise of reasonable Engineering Judgment, considering the circumstances; and
 - b. Shell informs EPA of the technical basis for selecting the alternative Metal Loss Tool before conducting the ILI.

2. ILI Schedule

6. Shell shall complete ILIs during 2003 using both a Metal Loss Tool and a deformation ILI tool on the following segments of the North Line Products Pipeline System within Shell Pipeline Systems: Peotone to East Chicago 14" and Argo to Des Plaines 14". For the 2003 ILIs, Shell may utilize any Analyzed ILI Data or other information from ILIs conducted on or after January 1, 2002.
7. Shell shall complete ILIs during 2003 using both a Metal Loss Tool and a deformation ILI tool on the following segments of the Orion Products Pipeline System within Shell Pipeline Systems: Walnut Springs to Clyde 16" (sub-segment), and Frost to Underwood 12". For the 2003 ILIs, Shell may utilize any Analyzed ILI Data or other information from ILIs conducted on or after January 1, 2002.
8. Shell shall complete ILIs during 2007 using both a Metal Loss Tool and a deformation ILI tool on the following segments of the Orion Products Pipeline System within Shell Pipeline Systems: Abilene to Tye 16", Clyde to Abilene 14" and Frost to Walnut Springs 16"(sub-segment).
9. Shell shall complete ILIs during 2003 using both a Metal Loss Tool and a deformation ILI tool on the following segments of the Chase Colorado Products Pipeline System within Shell Pipeline Systems: Scott City to Aurora 10", Eldorado to MP44 10", and MP44 to Scott City 12". For the 2003 ILIs, Shell may utilize any Analyzed ILI Data or other information from ILIs conducted on or after January 1, 2002.
10. Shell shall complete ILIs during 2003 using both a Metal Loss Tool and a deformation ILI tool on the following segments of the East Line Products Pipeline System within Shell Pipeline Systems: Wood River to Zionsville 12" and Zionsville to Lima 12". For the 2003 ILIs, Shell may utilize any Analyzed ILI Data or other information from ILIs conducted on or after January 1, 2002.

- 1 11. Shell shall complete an ILI during 2003 using both a Metal Loss Tool and a deformation
2 ILI tool on the Wood River to Peotone 14" segment of the North Line Products Pipeline
3 System within Shell Pipeline Systems. For the 2003 ILI, Shell may utilize any Analyzed
4 ILI Data or other information from ILIs conducted on or after January 1, 2002.
- 5 12. Shell shall complete ILIs during 2003 using both a Metal Loss Tool and a deformation
6 ILI tool on the following segments of the Orion Products Pipeline System within Shell
7 Pipeline Systems: Tye to Stanton 16", Stanton to Midland 14", Underwood to Henrietta
8 12", and Henrietta to Duncan 12". For the 2003 ILIs, Shell may utilize any Analyzed ILI
9 Data or other information from ILIs conducted on or after January 1, 2002.
- 10 13. Shell shall perform an ILI during 2004 using both a Metal Loss Tool and a deformation
11 ILI tool on the Aurora to DIA 10" segment of the Chase Colorado Products Pipeline
12 System within Shell Pipeline Systems.
- 13 14. Shell shall perform an ILI during 2004 using both a Metal Loss Tool and a deformation
14 ILI tool on the Midland to Odessa 12" segment of the Orion Products Pipeline System
15 within Shell Pipeline Systems.
- 16 15. Shell shall perform an ILI during 2005 using both a Metal Loss Tool and a deformation
17 ILI tool on the East Houston to Corsicana 16" segment of the Orion Products Pipeline
18 System within Shell Pipeline Systems.
- 19 16. Shell shall perform ILIs during 2006 using both a Metal Loss Tool and a deformation ILI
20 tool on the following segments of the Chase Kansas Products Pipeline System within
21 Shell Pipeline Systems: Eldorado to Hudson 10" and Hudson to Scott City 10".
- 22 17. Shell shall perform an ILI during 2006 using both a Metal Loss Tool and a deformation
23 ILI tool on the Corsicana to Frost 20" segment of the Orion Products Pipeline System
24 within Shell Pipeline Systems.

1 **C. Evaluation Requirements**

- 2 18. Within 1 year after completing any ILI required by this Appendix, Shell shall obtain
3 Analyzed ILI Data and shall use reasonable Engineering Judgment to complete an
4 evaluation of that data and other appropriate and adequate information to identify
5 predicted or suspected defects or anomalies described in Paragraph 24 of this Appendix.
6 The date of completion of the evaluation required by this Paragraph shall be deemed the
7 Date of Discovery of the predicted or suspected defects or anomalies identified in the
8 evaluation.

9 **D. Excavation and Response Requirements**

- 10 19. After Shell completes any evaluation required by Paragraph 18 of this Appendix, and
11 within the time required by Paragraphs 20-22 of this Appendix, Shell shall:
12 a. excavate and perform a visual inspection and further evaluation to confirm the
13 existence of any defects or anomalies described in Paragraph 24 of this Appendix
14 at each location where such defects or anomalies were predicted or suspected as a
15 result of the evaluation performed pursuant to Paragraph 18 of this Appendix; and
16 b. repair, remove, or replace, any portion of the Pipeline for which visual inspection
17 and further evaluation confirms the existence of any of the defects or anomalies
18 described in Paragraph 24 of this Appendix.
- 19 20. Excavation and Response Schedule for Pipeline Within a High Consequence Area. For
20 all Pipeline covered by an ILI required by this Appendix and within a High Consequence
21 Area, Shell shall complete all excavation and response requirements in the preceding
22 Paragraph within 9 months from the Date of Discovery as defined in Paragraph 18 of this
23 Appendix, unless Shell has reasonably determined, pursuant to Paragraph 25 of this
24 Appendix, that a reinterpretation of the Analyzed ILI Data is required or that a new ILI
25 must be performed.

21. Excavation and Response Schedule for Pipeline Not Within a High Consequence Area.

For all Pipeline covered by an ILI required by this Appendix and not located within a High Consequence Area, Shell shall complete all excavation and response requirements in Paragraph 19 of this Appendix within 18 months from the Date of Discovery as defined in Paragraph 18 of this Appendix, unless Shell has reasonably determined, pursuant to Paragraph 25 of this Appendix, that a reinterpretation of the Analyzed ILI Data is required or that a new ILI must be performed.

22. Immediate Excavation and Response Requirements. Notwithstanding the schedule for excavation and repairs in Paragraphs 20 and 21 of this Appendix and pursuant to Paragraph 19 of this Appendix, as soon as safely possible after the Date of Discovery of predicted or suspected defects or anomalies that would meet the description in Subparagraphs a-d of this Paragraph, Shell shall temporarily reduce the operating pressure at the location of the predicted or suspected defect or anomaly (1) to 80% of the MOP; or (2) in the case of a defect or anomaly described in Subparagraph b of this Paragraph, based on the predicted burst pressure calculated in accordance with ASME B31G-1991 or AGA Project PR-3-805, until Shell has further evaluated the suspected defect or anomaly and completed any required responses. After reducing the operating pressure in accordance with the requirements of the preceding sentence, within 120 Days after the Date of Discovery, Shell shall excavate the predicted or suspected defect or anomaly and repair, remove, or replace any defect or anomaly, as defined in this Paragraph, confirmed by visual examination and further evaluation following excavation, after which the temporary pressure reduction required by the preceding sentence shall no longer be required. The defects or anomalies subject to these requirements are:

- a. metal loss greater than or equal to 80% of the nominal wall thickness regardless of pipe dimension;

- 1 b. any defect or anomaly for which a calculation of the remaining strength of the
2 pipe shows a predicted burst pressure less than the established MOP at the
3 location of the defect or anomaly as determined by the calculation methods in:
- 4 i. ASME B31G-1991;
 - 5 ii. AGA Project PR-3-805; or
 - 6 iii. upon approval by EPA, which approval may not unreasonably be
7 withheld, any other suitable calculation method;
- 8 c. a dent on the Top-Side of the Pipeline that has an indication of metal loss,
9 cracking, or a stress riser; and
- 10 d. a dent on the Top-Side of the Pipeline with a depth exceeding 6% of the nominal
11 pipe diameter.

12 23. Shell shall perform the repair, removal, or replacement of any portion of the Pipeline
13 pursuant to Paragraphs 19-22 of this Appendix in accordance with the standards in
14 ASME B31.4-2002 Parts 451.6.2 and 451.6.3.

15 **E. Response Standards**

- 16 24. In accordance with the schedule in Paragraphs 20-22 of this Appendix, Shell shall repair,
17 remove, or replace any portion of the Pipeline that has any of the following defects or
18 anomalies:
- 19 a. dents of any size containing a scratch, crack, gouge, or groove;
 - 20 b. dents of any size that have an indication of metal loss, cracking, or a stress riser;
 - 21 c. dents of any size that affect pipe curvature at the pipe seam or at any girth weld;
 - 22 d. dents exceeding a depth of 6% of the nominal pipe diameter;
 - 23 e. corrosion of, or along, seam welds;
 - 24 f. any defect or anomaly for which a calculation of the remaining strength of the
25 pipe using the criterion in ASME B31G-1991 or AGA Project PR-3-805 shows a

- 1 predicted burst pressure less than or equal to 100% of the SMYS of the affected
2 pipe;
- 3 g. metal loss greater than 50% of the nominal wall thickness in areas of general
4 corrosion;
- 5 h. metal loss greater than 50% of the nominal wall thickness that is located at the
6 crossing of another pipeline, or is in an area with widespread circumferential
7 corrosion, or is in an area that could affect a girth weld;
- 8 i. metal loss greater than or equal to 80% of the nominal wall thickness regardless
9 of pipe dimension;
- 10 j. weld anomalies with metal loss greater than 50% of nominal wall thickness;
- 11 k. cracks of any size;
- 12 l. gouges, and grooves of any size;
- 13 m. arc burns of any size;
- 14 n. localized corrosion pitting as defined by ASME B31.4 § 451.6.2(a)(7); or
- 15 o. any defect or anomaly for which a calculation of the remaining strength of the
16 pipe shows a predicted burst pressure less than the established MOP at the
17 location of the defect or anomaly as determined by the calculation methods in:
- 18 i. ASME B31G-1991;
- 19 ii. AGA Project PR-3-805; or
- 20 iii. upon approval by EPA, which approval may not unreasonably be
withheld, any other suitable calculation method.

21 Nothing in this Appendix shall be or is intended to be an admission or concession by
22 Shell that any of the conditions set forth in this Paragraph or in Paragraph 22 of this
23 Appendix, if not immediately corrected, would likely result in a failure of the Pipeline or
24 a release of petroleum products from that Pipeline.

F. Reinterpretation of ILI Data or Performance of New ILI

25. If during excavation or visual inspection and further evaluation of the predicted or suspected defects or anomalies identified pursuant to Paragraph 18 of this Appendix, Shell has a reasonable basis to determine that the anomalies described in the Analyzed ILI Data are characterized incorrectly or otherwise do not allow a reasonably accurate identification of defects or anomalies described in Paragraph 24 of this Appendix, Shell may, based on reasonable Engineering Judgment, elect to cease excavation and evaluation activities and consult with the ILI Vendor to determine whether to require a reinterpretation of the Analyzed ILI Data or to perform a new ILI. If Shell elects to cease excavation and evaluation activities, Shell shall notify EPA and the Independent Monitoring Contractor of the election no later than 60 Days before the original deadline for completing the excavation and response.

a. Within 60 Days after the date that Shell notifies EPA and the Independent Monitoring Contractor of its election to cease excavation and response activities, Shell shall either:

- i. submit to EPA and the Independent Monitoring Contractor a written commitment to complete a reinterpretation and new evaluation of the Analyzed ILI Data and report to EPA and the Independent Monitoring Contractor the results of the new evaluation, including the Date of Discovery of any defects or anomalies pursuant to the new evaluation, within 90 Days of the date of the written commitment; or
- ii. submit to EPA and the Independent Monitoring Contractor a written commitment to conduct a replacement ILI within 270 Days of the date of the written commitment.

b. If Shell elects to complete a reinterpretation and new evaluation of the Analyzed ILI Data in accordance with the Subparagraph a.i of this Paragraph, and

recommences excavation and response activities and reasonably determines that the reinterpretation and new evaluation of the Analyzed ILI Data still improperly characterizes the defects or anomalies or otherwise does not allow a reasonably accurate identification of defects or anomalies described in Paragraph 24 of this Appendix, Shell shall submit to EPA and the Independent Monitoring Contractor a written commitment to conduct a replacement ILI within one year of the date of the commitment pursuant to Subparagraph a.i of this Paragraph to complete a reinterpretation and new evaluation of the Analyzed ILI Data.

- c. Whenever Shell proceeds with a replacement ILI pursuant to this Paragraph, Shell shall complete a new evaluation of the Analyzed ILI Data from the replacement ILI, and other appropriate and adequate information, within the time required by Paragraph 18 of this Appendix, and shall complete any required excavations, repairs, removals, or replacements within the time required by Paragraphs 20-22 of this Appendix.

G. Dispute Resolution Regarding Shell's Obligations Pursuant to Paragraphs 18 through 25 of this Appendix

26. Shell shall include a written Notice of Completion in the Semiannual Progress Report for the Semester in which Shell completes all evaluation, excavation, and response actions required by Subsections III.C and III.D of this Appendix for a particular Pipeline segment.

- a. Within 120 Days of the date of any Semiannual Progress Report containing a Notice of Completion described in the preceding sentence, or at any time before receiving the Notice of Completion, EPA may submit to Shell a written Notice of Review stating that EPA seeks further review of all or part of Shell's evaluation, excavation, and response actions for a Pipeline segment.

- 1 b. Within 30 Days of the date of any Notice of Review, or such longer period to
2 which EPA and Shell agree in writing, Shell shall meet with EPA and, at EPA's
3 option, any authorized representatives or EPA contractors, to discuss EPA's
4 concerns.
- 5 c. Within 30 Days after the conclusion of any meeting required by the preceding
6 sentence, EPA may issue to Shell a written preliminary Notice of Dispute briefly
7 describing the elements of the dispute.
- 8 d. Within 20 Days after the date of any preliminary Notice of Dispute, Shell may
9 submit to EPA a written response.
- 10 e. If EPA does not rescind a preliminary Notice of Dispute in writing within 45
11 Days of such notice, or such longer period to which EPA and Shell agree in
12 writing, the preliminary Notice of Dispute shall become final.
- 13 f. Within 10 Working Days after a Notice of Dispute becomes final, a petition for
14 review may be filed with the Court to resolve the dispute. In any such
15 proceeding, the Court will determine whether Shell's evaluation or response
16 actions meet the requirements of Paragraphs 18-25 of this Appendix.
- 17 g. Notwithstanding any other provisions of this Appendix or the Consent Decree,
18 the dispute resolution procedures described in this Paragraph shall be the
19 exclusive mechanism for resolving disputes arising under Paragraphs 18
20 through 25 of this Appendix except as otherwise provided in this Subparagraph.
21 If the United States has not invoked the dispute resolution procedures in this
22 Paragraph, however, the United States may invoke any available procedure other
23 than the dispute resolution procedures in Section XIII (Dispute Resolution) of the
24 Consent Decree to resolve any issue arising under Paragraphs 18 through 25 of
25 the Appendix.

H. Extensions of Time to Complete Evaluation and Response Actions

27. If Shell cannot complete the evaluation or response actions in the time required by Paragraphs 18, 20-22 and 25 of this Appendix despite reasonable and diligent efforts to do so, Shell may submit a written request for an extension of time to EPA, specifying the number of Days of the requested extension, at least 45 Days before the expiration of the relevant deadline. After receiving a written request for an extension of time from Shell pursuant to this Paragraph, EPA shall provide Shell with a written response in which EPA may, in its discretion, either grant or deny, in whole or in part, the requested extension of time. EPA shall not unreasonably deny a request for extension of time pursuant to this Paragraph. If EPA provides Shell with a written response denying Shell's request for an extension of time, the original deadline will remain in effect unless the date that Shell receives EPA's letter denying the extension of time is less than 30 Days before, or at any time after, the original deadline, in which case Shell shall be required to complete the evaluation or response actions within 30 Days of the date that Shell receives EPA's denial.

I. Data Submission and Record Retention Requirements

28. Within 10 Days after receiving any request from EPA for a copy of any ILI data or Analyzed ILI Data, Shell shall submit the requested ILI data or Analyzed ILI Data to EPA.
29. Record Retention. Shell shall retain all ILI data and Analyzed ILI Data in accordance with the record retention provisions of Section XVI of the Consent Decree.

IV. PRESSURE TESTING

30. Shell shall perform either an ILI pursuant to the requirements of Section III of this Appendix, or a hydrostatic test during 2003 in accordance with the standards and requirements of ASME B31.4-2002, Paragraph 437.4.1 and API RP 1110, on the Sunset

to Eldorado 8" segment of the Chase Kansas Products Pipeline System within Shell Pipeline Systems.

31. Shell shall perform either an ILI pursuant to the requirements of Section III of this Appendix, or a hydrostatic test during 2003 in accordance with the standards and requirements of ASME B31.4-2002, Paragraph 437.4.1 and API RP 1110, on the Sunset to Eldorado 16" segment of the Chase Colorado Products Pipeline System within Shell Pipeline Systems.

32. Shell shall perform either an ILI pursuant to the requirements of Section III of this Appendix, or a hydrostatic test during 2003 and in accordance with the standards and requirements of ASME B31.4-2002, Paragraph 437.4.1 and API RP 1110, on the following segments of the Orion Products Pipeline System within the Shell Pipeline Systems: Underwood to Pride 12" and Pride to Aledo 6".

33. Shell shall complete either an ILI pursuant to the requirements of Section III of this Appendix, or a hydrostatic test during 2007 in accordance with the standards and requirements of ASME B31.4-2002, Paragraph 437.4.1 and API RP 1110, on the Peotone to Argo 14" segment of the North Line Products Pipeline System within Shell Pipeline Systems.

34. Response Requirements. If a pressure test reveals a Pipeline leak, Shell shall:

- a. repair or replace the portion of the Pipeline segment where the leak occurred in accordance with the standards in ASME B31.4-2002 Parts 451.6.2 and 451.6.3; and
- b. retest the affected portion of the Pipeline segment in accordance with the applicable standards of 49 C.F.R. Part 195, if required.

35. Record Retention. Shell shall retain all records related to pressure testing of segments of Pipeline within Shell Pipeline Systems in accordance with the record retention provisions of Section XVI of the Consent Decree.

1 **V. CLOSE INTERVAL SURVEYS**

- 2 36. Performance Standard for Cathodic Protection. Shell shall maintain a Cathodic
3 Protection System on all Pipeline within Shell Pipeline Systems in accordance with
4 NACE RP0169-2002. Shell shall follow corrosion control criteria in
5 NACE RP0169-2002 including one or more of the criteria and other conditions for
6 cathodic protection in section 6 of NACE RP0169-2002.
- 7 37. Close Interval Surveys. Shell shall complete one close interval survey on all Pipeline
8 within Shell Pipeline Systems within 4 years of the Effective Date of the Consent
9 Decree. Shell shall perform the close interval survey in accordance with NACE RP0169-
10 2002 at maximum intervals of four feet (maintaining an overall system-wide average no
11 greater than three feet) excluding areas in which such an interval is impracticable such as
12 paved areas and railroads. Shell shall perform the close interval survey in a manner
13 sufficient to determine whether or not the Cathodic Protection System conforms with the
14 criteria referenced in the preceding Paragraph for all locations surveyed. Shell may
15 utilize any data or other information from the close interval survey conducted during
16 2002 to meet the requirements of this Paragraph.
- 17 38. Corrective Action. If any portion of the Pipeline within Shell Pipeline Systems does not
18 meet the performance standard referenced in Paragraph 36 of this Appendix, Shell shall
19 perform all corrective action necessary to comply with that standard within 2 years after
20 completing the close interval survey required by the preceding Paragraph.
- 21 39. Rotating Disk Visual Indicator Requirements. Within 3 years after the Effective Date of
22 the Consent Decree, Shell shall install rotating disc visual indicators on all rectifiers
23 within Shell Pipeline Systems. Within 1 year after installing the rotating disk visual
24 indicators, and annually thereafter until the Consent Decree is terminated, Shell shall
25 complete an on the ground survey to check the rotating disk visual indicator on each

rectifier to determine whether or not the Cathodic Protection System is operating properly.

40. Rectifier Inspections. Beginning 6 months after the Effective Date of the Consent Decree until it is terminated, at intervals not exceeding 2½ months, but at least six times each calendar year after the initial year, Shell shall inspect each of its cathodic protection rectifiers to determine whether or not the Cathodic Protection System is operating properly.

VI. PIPELINE RIGHT-OF-WAY SURVEYS

41. On the Ground Surveys. Within one year of the Effective Date of the Consent Decree, and once every two years thereafter until the Consent Decree is terminated, Shell shall complete an on-the-ground survey of the entire Pipeline right-of-way within Shell Pipeline Systems to:

- a. identify all Exposed Pipe;
- b. assess the visibility and accessibility of the right-of-way;
- c. assess the condition and spacing of pipeline signs; and
- d. discover any third party Excavation Activity on, or within 50 feet of, the right-of-way.

42. Waterway Shallow Cover Inspection. Within six years of the Effective Date of the Consent Decree, Shell shall inspect each portion of the Pipeline crossing under any Commercially Navigable Waterway to identify any Shallow Cover Pipe.

43. Aerial Surveys. Beginning 9 months after the Effective Date of the Consent Decree, and until the Consent Decree is terminated, Shell shall complete weekly aerial surveys of the entire Pipeline right-of-way within Shell Pipeline Systems if weather, security, and flight conditions permit. To the extent possible and pursuant to industry standards, the aerial surveyors shall identify and assess the conditions and activities described in Paragraph 41 of this Appendix.

- 1 44. Exposed Pipe. Shell shall, within 180 Days after completing the survey required by
2 Paragraph 41 of this Appendix, conduct an inspection of any Exposed Pipe discovered
3 during the survey to determine whether or not the Exposed Pipe has any of the defects or
4 anomalies described in Paragraph 24 of this Appendix unless Shell needs to obtain a
5 permit or access before conducting the inspection. If Shell needs to obtain a permit or
6 access before conducting the inspection, Shell shall (1) apply for the permit within
7 90 Days after completing the survey in which the Exposed Pipe was discovered; and
8 (2) conduct the inspection within 180 Days after obtaining the necessary permit or
9 access. If an inspection confirms the existence of any such defect or anomaly, Shell shall
10 repair, remove, or replace the Exposed Pipe in accordance with the standards referenced
11 in Paragraph 23 of this Appendix and in accordance with the applicable schedule
12 required by Paragraphs 20-22 of this Appendix, using the date of inspection as the Date
13 of Discovery. Shell shall, at the time of any such repair, removal, or replacement,
14 evaluate the risk of outside force damage to the Exposed Pipe, and in areas susceptible to
15 outside force damage shall either (1) restore the cover to the standards in ASME B31.4-
16 2002, Table 434.6(a); or (2) install physical protective measures necessary to provide
17 reasonable assurance of safety and integrity of the Pipeline. For all other Exposed Pipe
18 locations, Shell shall annually inspect such locations in accordance with this Paragraph.
- 19 45. Shallow Cover Pipe. Within 18 months after Shell discovers Shallow Cover Pipe during
20 the inspection required by Paragraph 42 of this Appendix, Shell shall either:
21 a. restore the cover to the standards in ASME B31.4-2002, Table 434.6(a); or
22 b. with EPA's prior written approval, mitigate the Shallow Cover Pipe in a manner
23 sufficient to provide reasonable assurance of safety and integrity of the Pipeline.
- 24 46. Pipeline Visibility and Accessibility. Within one year after completing the initial survey
25 required by Paragraph 41 of this Appendix, and once every two years thereafter until the
26 Consent Decree is terminated, to the extent practicable, Shell shall mow, clear brush, and

perform all other actions necessary to ensure that the entire Pipeline right-of-way is visible and accessible for effective emergency response, Pipeline maintenance, inspection, and survey activities.

47. Pipeline Signs. Within two years of the Effective Date of the Consent Decree, and once every two years thereafter, Shell shall, as practicable, install, repair, clear vegetation obscuring, or replace, as necessary, pipeline signs directly above or in close proximity to the buried Pipeline so that, to the extent practicable, at least one pipeline sign is visible from any point along the Pipeline right-of-way.

VII. EMERGENCY FLOW RESTRICTIVE DEVICES

48. Shell EFRD Analysis. Within one year after the Effective Date of this Consent Decree, using its proprietary spill model, surge analysis, and other appropriate information or data, Shell shall complete an analysis to determine appropriate locations for installation of EFRDs that will provide additional protection to the public or the environment.

49. EFRD Installation. Within 4 years of the Effective Date of the Consent Decree, Shell shall install 8 EFRDs within Shell Pipeline Systems that will provide additional protection to the public or the environment.

VIII. COMPUTATIONAL PIPELINE MONITORING SYSTEM LEAK DETECTION TESTING

50. Testing Requirement. Within 180 Days after the Effective Date of the Consent Decree, Shell shall conduct a computational pipeline monitoring (CPM) system test on at least two of the Pipelines within Shell Pipeline Systems to determine whether or not the leak detection capability of the CPM software meets the performance standards and requirements of applicable regulatory requirements and API 1130. Within one year after Shell performs the CPM tests described in the preceding sentence, Shell shall perform one CPM test on each of the Pipelines that have not yet been tested. Following the completion of the initial CPM tests described in the first two sentences of this Paragraph,

Shell shall repeat those CPM tests on all of the pipelines within Shell Pipeline Systems at least once every two years.

51. Corrective Action. If the testing required by the preceding Paragraph reveals that the leak detection capability of the CPM software does not meet the performance standards and requirements of applicable regulatory requirements and API 1130, Shell shall, within 6 months after completing the testing, perform all corrective action necessary to meet those performance standards and requirements.

IX. DAMAGE PREVENTION PROGRAM

52. Within 180 Days of the Effective Date of this Consent Decree, Shell shall submit to EPA and the Independent Monitoring Contractor a written Damage Prevention Program, which Shell shall implement within the time required by Paragraph 61 of this Appendix. The Damage Prevention Program shall require Shell to conduct the activities described below:

- a. Shell shall continuously participate in a One-Call System covering each area in which a Pipeline operated by Shell Pipeline Systems is located.
- b. For all Excavation Activity within 50 feet of the Pipeline right-of-way that has any potential to affect the integrity of the Pipeline of which Shell or its contractors either knows or should know through a One-Call System, patrolling, or observation, Shell shall:
 1. obtain, if available, daily from the Excavator information regarding the construction schedule and any changes to the schedule;
 2. obtain, if available, daily from the Excavator information regarding the type of excavation and equipment the Excavator plans to use and any changes to those plans;
 3. obtain, if available, from the Excavator and retain drawings, plans, and any other documents necessary or helpful to monitor the Excavation

Activity, including any documents reflecting any change in the
Excavator's planned Excavation Activity;

4. ensure that a qualified Shell employee or contractor is physically present at the construction site to monitor Excavation Activity during the entire time that Excavation Activity occurs within 50 feet of the Pipeline; and
5. ensure that all Shell employees and contractors that monitor Excavation Activity prepare a daily written report of the monitored Excavation Activity, and that such daily reports are retained in Shell's files in accordance with the record retention provisions of Section XVI of the Consent Decree.

- c. When portions of the Pipeline are excavated for maintenance or inspection, Shell shall install warning mesh above the Pipeline at the time that the Pipeline is reburied.
- d. Shell shall ensure that the provisions of the Damage Prevention Program are incorporated or cross referenced, as appropriate, into Shell's written procedures and plans for training, operations, maintenance, and emergencies.

X. MANAGEMENT OF CHANGE PROGRAM

53. Within 180 Days of the Effective Date of this Consent Decree, Shell shall submit to EPA and the Independent Monitoring Contractor a written Management of Change Program, which Shell shall implement within the time required by Paragraph 61 of this Appendix. The Management of Change Program shall require Shell to conduct the activities described below:

- a. develop procedures to manage and review all pressure, flow, and control settings on existing protective devices, and changes to any such devices or their components within Shell Pipeline Systems;

- 1 b. address the following considerations prior to any change:
- 2 1. the technical basis for the proposed change including the methodology or
- 3 analysis utilized to determine the appropriate settings;
- 4 2. the impact of the change on the integrity of the Pipeline;
- 5 3. potential modifications to operating procedures in response to the change;
- 6 4. necessary time period for the change;
- 7 5. authorization requirements for the proposed change; and
- 8 6. position, education, and level of experience required for the Shell
- 9 employee or officer authorizing the change;
- 10 c. inform and train employees whose job duties are affected by the change in
- 11 pressure, flow, and control settings of existing or newly installed protective and
- 12 control devices;
- 13 d. ensure that the provisions of the Management of Change Program, and any
- 14 revisions, are incorporated or cross referenced, as appropriate, in Shell's written
- 15 procedures and plans for training, operations, maintenance, and emergencies; and
- 16 e. revise applicable engineering drawings and documents, as appropriate, to reflect
- 17 each change to pressure, flow, and control settings for existing or newly installed
- 18 protective and control devices and maintain records related to each change for the
- 19 life of the equipment or facility.

20 **XI. TRAINING PROGRAM**

- 21 54. Within 180 Days of the Effective Date of this Consent Decree, Shell shall submit to EPA
- 22 and the Independent Monitoring Contractor a written Training Program covering
- 23 SCADA controllers of Shell Pipeline Systems, which Shell shall implement within the
- 24

time required by Paragraph 61 of this Appendix. The Training Program shall require the activities described below:

- a. Shell shall appoint one or more SCADA Controller Training Coordinator(s) responsible for training, maintaining training documentation, and ensuring that Shell complies with all provisions of this Paragraph.
- b. For all new SCADA controllers of Shell Pipeline Systems hired on or after the Effective Date of this Consent Decree, Shell shall:
 1. include in the training required by this Subparagraph classroom and practical exercises and the use of a pipeline simulator;
 2. provide training and qualification testing pursuant to API 1161, specific to the SCADA system in use that includes responding to abnormal operations and starting up and shutting down any part of the Shell Pipeline Systems;
 3. test each new SCADA controller's knowledge of the SCADA system to ensure that the SCADA controller is capable of exercising sound judgment to perform the functions needed during both normal and abnormal operations; and
 4. require the new SCADA controller to work daylight shift for a minimum of the first two weeks of performing SCADA functions.
- c. For all SCADA controllers of Shell Pipeline Systems hired before the Effective Date of this Consent Decree, Shell shall:
 1. review the training and qualification records of each SCADA controller to determine whether or not each SCADA controller is capable of exercising sound judgment to perform the functions needed during both normal and abnormal conditions; and

- 1 2. perform remedial training and review for each SCADA controller, if
2 necessary.
- 3 d. Shell shall ensure that the provisions of the Training Program are cross
4 referenced in Shell's written procedures and plans for training, operations,
5 maintenance, and emergencies, as applicable.
- 6 55. Audit of the Training Program. Between two and three years after the Effective Date of
7 the Consent Decree, Shell shall conduct, and prepare a written report of, an audit of
8 Shell's SCADA Controller Training Program in accordance with the requirements of
9 Paragraphs 56 and 57 of this Appendix. Within 15 Days of the date of the written audit
10 report, Shell shall submit the written audit report to EPA and the Independent
11 Monitoring Contractor.
- 12 56. Scope of Audit. At a minimum, the audit required by the preceding Paragraph shall
13 include SCADA controller interviews and a review of all relevant documents including,
14 but not limited to:
- 15 a. the written SCADA Controller Training Program;
16 b. SCADA controller training records;
17 c. SCADA controller training manuals;
18 d. Shell's written procedures and plans for SCADA controller training; and
19 e. Semiannual Progress Reports.
- 20 57. Contents of Audit Report. The written audit report required pursuant to Paragraph 55 of
21 this Appendix shall include a description of the audit methodology, and also shall
22 include:
- 23 a. a description of the documents reviewed;
24 b. a list of SCADA controllers interviewed and their titles, and a summary of each
25 interview; and
26 c. a description of the audit findings.

XII. PROCEDURE FOR INDEPENDENT REVIEW AND IMPLEMENTATION OF WRITTEN PROGRAMS REQUIRED PURSUANT TO SECTIONS IX-XI OF THIS APPENDIX

58. Independent Review. After receiving from Shell a written program required by Sections IX, X, or XI of this Appendix, or a revised written program pursuant to Paragraph 59.a or Paragraph 60 of this Appendix, EPA and the Independent Monitoring Contractor shall review the written program and EPA shall provide Shell with a written response that either:
- a. states that the written program or revised written program meets the requirements of the Appendix to the best of EPA's knowledge and that EPA has no objection to the written program or revised written program; or
 - b. requires revisions to the written program or revised written program necessary to ensure compliance with the Consent Decree and this Appendix.
59. Shell's Response. If EPA requires revisions to a written program submitted by Shell pursuant to Paragraph 58.b of this Appendix, within 30 Days of the date of EPA's written response, Shell shall either:
- a. make the required revisions and submit a revised written program to EPA; or
 - b. submit to EPA a written Notice of Dispute pursuant to Paragraph 35 of the Consent Decree that states Shell's grounds for disputing any or all of EPA's required revisions.
60. Submission of Revised Written Programs Following Resolution of Disputes. Within 30 Days after resolving any disputes, asserted pursuant to Paragraph 59.b of this Appendix, regarding any of EPA's required revisions to any written program, Shell shall submit a revised written program to EPA that reflects the resolution of the dispute.
61. Implementation of Written Programs. Within 30 Days after the date of a written EPA response pursuant to Paragraph 58.a of this Appendix, Shell shall implement the written program or revised written program.

XIII. INDEPENDENT MONITORING CONTRACTOR

62. Shell shall follow the procedure in Section XIV of this Appendix to select, and contract with, an Independent Monitoring Contractor (IMC) to perform the duties described in Paragraph 65 of this Appendix. The IMC shall assign no more than 4 qualified employees to perform these duties.

63. Shell shall cooperate fully with the IMC and shall facilitate the IMC's execution of duties described in Paragraph 65 of this Appendix by providing the IMC with reasonable access to all relevant records, employees, and the physical Shell Pipeline Systems.

64. Qualifications. The IMC shall have one or more employees with demonstrated qualifications and experience in the technical areas relevant to the duties of the Independent Monitoring Contractor in Paragraph 65 of this Appendix. With the prior expressed approval of both EPA and Shell, the Independent Monitoring Contractor may also contract, as appropriate, with other outside individuals or entities that are qualified to perform the assigned tasks and satisfy the background requirements of Paragraph 67 of this Appendix.

65. Duties of the Independent Monitoring Contractor. The Independent Monitoring Contractor shall perform the following duties:

- a. review each Semiannual Report submitted by Shell pursuant to Paragraph 13 of the Consent Decree, and any other documents that the Independent Monitoring Contractor or EPA deems necessary, to determine whether or not Shell has complied with all provisions of the Consent Decree and this Appendix and report any determinations of non-compliance to Shell and EPA within 30 Days of the date of each Semiannual Report; provided, however, that the IMC's duties within the scope of this Appendix or the Consent Decree shall not include reviewing ILI data or Analyzed ILI Data;

- 1 b. Review the programs submitted by Shell pursuant to Sections IX-XI of this
2 Appendix to recommend any revisions necessary to ensure compliance with the
3 Consent Decree and this Appendix and submit those recommendations to both
4 EPA and Shell within 30 Days after the date that Shell submits each proposed
5 program;
- 6 c. review and analyze the written audit report of the Training Program that Shell
7 submits pursuant to Section XI of this Appendix and notify EPA and Shell of any
8 determinations of non-compliance with this Appendix revealed by the
9 Independent Monitoring Contractor's analysis of the written audit report;
- 10 d. on each of the following pipeline systems within Shell Pipeline Systems: East
11 Line Products, North Line Products, Chase Kansas Products, Chase Colorado
12 Products, and Orion Products, each calendar year conduct up to one physical site
13 visit, with up to 4 persons, lasting up to 3 Days for each visit, including employee
14 or contractor interviews, record review, and inspections and observations of any
15 activities if deemed appropriate, to assess whether or not Shell is complying with
16 this Appendix. Absent emergency, any such site visit shall be made at reasonable
17 times and after reasonable notice to Shell;
- 18 e. each calendar year conduct up to one additional physical site visit, with up to
19 4 persons, lasting up to 3 Days, other than the site visits in the preceding
20 Subparagraph, on any one of the pipeline systems within Shell Pipeline Systems,
21 in the unreviewable discretion of the Independent Monitoring Contractor or at the
22 request of EPA, including employee or contractor interviews, record review, and
23 inspections and observations of any activities if deemed appropriate, to assess
24 whether or not Shell is complying with this Appendix;
- 25 f. confer on request by either Shell or EPA, separately or jointly, to discuss
26 implementation of this Appendix and to assist in dispute resolution;

- 1 g. investigate concerns regarding potential noncompliance with this Appendix as
2 requested by EPA;
- 3 h. immediately notify Shell of problems that may affect compliance with this
4 Appendix, and if the problems are not resolved within 15 Days after the
5 Independent Monitoring Contractor notifies Shell, notify EPA of the problems,
6 and summarize those problems in a report to EPA that includes recommendations
7 regarding how Shell can resolve those problems;
- 8 i. immediately notify Shell and EPA of any circumstance that may constitute
9 noncompliance with this Appendix and summarize those circumstances in a
10 report to both Shell and EPA that includes recommendations regarding how Shell
11 can resolve the circumstance;
- 12 j. submit an annual report to Shell and EPA within 30 Days after the end of each
13 calendar year summarizing:
- 14 1. site visits that the Independent Monitoring Contractor conducted during
15 the year pursuant to Subparagraphs d and e of this Paragraph;
- 16 2. any problems that may affect compliance with this Appendix;
- 17 3. any circumstances that may constitute noncompliance with this Appendix;
18 and
- 19 4. the status of Shell's compliance with this Appendix during the year; and
- 20 k. any other duties or responsibilities specifically required of the Independent
21 Monitoring Contractor in the Consent Decree or in this Appendix.
- 22 66. Neither Shell nor EPA shall be bound by the recommendations of the Independent
23 Monitoring Contractor.
- 24
- 25
- 26

1 **XIV. PROCEDURE FOR SELECTING, CONTRACTING WITH, AND REPLACING**
2 **THE INDEPENDENT MONITORING CONTRACTOR**

3 67. Qualifications and Background. The Independent Monitoring Contractor shall have the
4 qualifications and experience required by Paragraph 64 of this Appendix. The
5 Independent Monitoring Contractor shall not:

- 6 a. be a present employee of Shell, or of any owner, parent corporation, subsidiary,
7 or predecessor corporation of Shell;
- 8 b. have a current financial or ownership interest in any of Shell's businesses or
9 operations; or
- 10 c. be a Shell contractor, or employee of such contractor, hired to implement any
11 provision of this Appendix other than the provisions of Section XIII (Independent
12 Monitoring Contractor).

13 68. Selection Procedure. The Independent Monitoring Contractor shall be selected pursuant
14 to the procedures described below.

- 15 a. Within 30 Days from the Effective Date of this Consent Decree or 30 Days from
16 the date that the parties agree on the need for a replacement consultant pursuant
17 to Paragraph 70 of this Appendix, or a final decision affirming the need for a
18 replacement consultant is rendered pursuant to the dispute resolution procedures
19 in Section XIII (Dispute Resolution) of the Consent Decree, Shell shall submit to
20 EPA (1) a letter providing the name of a proposed independent consultant that is
21 willing to serve as the Independent Monitoring Contractor; (2) a resume or
22 curriculum vitae of each individual who would perform the required work; (3) the
23 terms of payment for the consultant's services; and (4) a description of any
24 current or past financial relationship between the proposed consultant, and the
25 consultant's employees who will perform the required work, and Shell or the
26 related entities specified in the preceding Paragraph, which Shell shall certify as

1 accurate. After receiving such information, EPA shall submit a letter to Shell that
2 either accepts or rejects the proposed consultant. EPA shall not unreasonably
3 withhold approval of a proposed consultant. If the letter from EPA accepts the
4 proposed consultant, Shell shall contract with the consultant to perform the
5 required work in accordance with the procedure in Paragraph 69 of this
6 Appendix. If EPA rejects the proposed consultant, Shell shall repeat the
7 procedure in this Paragraph up to two additional times by recommending another
8 proposed consultant.

- 9 b. If EPA rejects three of Shell's proposed consultants, EPA shall then submit to
10 Shell a letter providing (1) the names of at least three proposed independent
11 consultants who are willing to serve; (2) a resume or curriculum vitae of each of
12 consultants' personnel who would perform the required work; and (3) a
13 description of any current or past financial relationship related to this case
14 between each proposed consultant and the United States. Shell then shall have 30
15 Days from the date of such letter to submit to EPA a letter accepting one of the
16 three proposed consultants or rejecting all of them. If Shell accepts one of the
17 three consultants proposed by EPA, Shell shall contract with the consultant to
18 perform the required work in accordance with the procedure in Paragraph 69 of
19 this Appendix. If Shell rejects all of the consultants proposed by EPA, either
20 EPA or Shell may invoke the dispute resolution procedures in Section XIII
(Dispute Resolution) of the Consent Decree.

- 21 69. Contracting Procedure. Within 30 Days of the date of a letter from EPA or Shell
22 accepting a proposed Independent Monitoring Contractor, or a final decision pursuant to
23 the dispute resolution procedures in Section XIII (Dispute Resolution) of the Consent
24 Decree designating an Independent Monitoring Contractor, Shell shall draft, and submit
25 to EPA for approval, a proposed contract obligating the Independent Monitoring

Contractor to perform the duties described in Paragraph 65 of this Appendix. Within 15 Days after the date of any letter from EPA notifying Shell of any needed revisions to the contract with the Independent Monitoring Contractor, Shell shall incorporate, modify, or reject the revisions and submit the revised contract to EPA for approval. Within 30 Days of the date of EPA's written approval of the contract, Shell shall enter into the contract with the Independent Monitoring Contractor, and submit a copy of the executed contract to EPA.

70. Replacement Procedure. If the Independent Monitoring Contractor becomes unable or unwilling to perform or complete the required work, or for other good cause, Shell and EPA shall confer in good faith regarding whether or not Shell and EPA need to select a replacement Independent Monitoring Contractor. If Shell and EPA agree on the need to select a replacement Independent Monitoring Contractor, Shell and EPA shall select the replacement Independent Monitoring Contractor in accordance with the selection procedures in Paragraph 68 of this Appendix. If Shell and EPA do not agree on the need to select a replacement Independent Monitoring Contractor, either Shell or EPA may invoke the dispute resolution procedures in Section XIII (Dispute Resolution) of the Consent Decree.

XV. SEMIANNUAL PROGRESS REPORTS

71. Semiannual Progress Reports. Beginning on the Effective Date of this Decree and through and including the Semester in which this Consent Decree is terminated pursuant to Section XXII (Termination Date), Shell shall submit certified Semiannual Progress Reports to EPA and the Independent Monitoring Contractor. The first Semiannual Progress Report shall be due within 45 Days of the close of the first Semester ending more than 90 Days after entry of this Consent Decree, with subsequent reports due within 30 Days of the close of each Semester thereafter.

72. Certification Requirement. Shell shall submit the following written certification with each Semiannual Progress Report, signed by a Responsible Corporate Official:

I certify under penalty of law that this submission was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I further certify under penalty of law that, to the best of my knowledge, based on my reasonable inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

73. Contents of Semiannual Progress Reports. Shell shall include in each Semiannual Progress Report a statement regarding Shell's activities during the Semester for each of the categories described below. If no information exists for a particular category during the Semester, Shell nevertheless shall include that category in the report with an affirmative statement that no information exists for that category and a brief explanation why no such information exists. Each Semiannual Progress Report shall describe:

- a. A summary of all actions Shell has taken to comply with Section III of this Appendix including (1) ILIs conducted; (2) Analyzed ILI Data received; and (3) excavations and responses conducted. Additionally, for each defect or anomaly that Shell excavates or investigates in any way pursuant to Section III of this Appendix, Shell shall describe:
 1. the location of the defect or anomaly including, as applicable, state, county, city, latitude and longitude, pipeline milepost segment, and any other information necessary or helpful to precisely identify the location of the anomaly;
 2. a pipe description including outside diameter, wall thickness, grade, manufacturer, if known, depth of cover, type of coating, and date of construction;

3. the date of completion of the ILI that identified the location of the defect or anomaly;
4. the identity of the ILI Vendor and a description of the ILI tool used;
5. ILI details such as the inspection chart number or other comparable identifier, odometer number, and defect or anomaly number;
6. a description of the defect or anomaly as represented in the Analyzed ILI Data report;
7. the Date of Discovery of the defect or anomaly identified Pursuant to Paragraph 18 of this Appendix;
8. the date that Shell or its agents excavated and further evaluated the defect or anomaly;
9. a summary of Shell's findings of the evaluation for the defect or anomaly including:
 - i. the depth of gouges and grooves as a percentage of nominal wall thickness;
 - ii. the depth of dents as a percentage of nominal pipe diameter;
 - iii. whether or not each dent affected pipe curvature or a seam, girth, or repair weld and, if so, how;
 - iv. whether or not each dent contained a scratch, gouge, or groove; and
 - (a) the length of each scratch, gouge, and groove; and
 - (b) the depth of each scratch, gouge, and groove at its deepest point;
 - v. measurements and other field observations regarding crack indications; and

- vi. the extent of corrosion including its length, its circumferential extent around the pipe, and the percentage of wall thickness loss at the deepest point of corrosion; and
10. a statement regarding whether or not the defect or anomaly was repaired, removed, or replaced, and the reason for any decision not to repair, remove, or replace the defect or anomaly;
11. a description of any repair, removal, or replacement, of the defect or anomaly; and
12. a statement regarding whether or not the evaluation and disposition of each defect or anomaly complied with this Appendix;
- b. a summary of all actions that Shell has taken to comply with Section IV of the Appendix including:
 1. hydrostatic tests conducted;
 2. anomalies, leaks, or Pipeline failures discovered during, or resulting from, any hydrostatic tests conducted; and
 3. Pipeline repairs or replacements conducted of anomalies, leaks, or Pipeline failures discovered as a result of any hydrostatic tests;
- c. a summary of all actions that Shell has taken to comply with Section V of the Appendix regarding close interval surveys including:
 1. a summary of the pipeline segments surveyed including location, miles inspected, and the average lengths of the intervals;
 2. the date of the survey;
 3. the identity of any contractor used;
 4. the results of the survey;
 5. whether or not the survey was conducted in accordance with NACE RP0169-2002;

6. a description of all corrective measures taken as a result of the survey; and
7. a report of any malfunctioning rectifiers discovered and/or repaired;
- d. a summary of all actions that Shell has taken to comply with Section VI of the Appendix including:
 1. on-the-ground surveys of the Pipeline right-of-way;
 2. aerial surveys of the Pipeline right-of-way;
 3. Exposed Pipe discovered, remediated, repaired, replaced, or reburied including:
 - i. the location of the Exposed Pipe;
 - ii. the existence of any defects or anomalies described in Paragraph 24 of this Appendix;
 - iii. repairs, removals, or replacements, if any, made; and
 - iv. any actions taken to increase the depth of cover or install physical protective devices;
 4. all mowing, brush clearing, and similar activities;
 5. activities undertaken to comply with Paragraph 47 of this Appendix and the date of installation of all Pipeline signs installed, repaired, or replaced after the Effective Date of the Consent Decree; and
 6. third party Excavation Activity discovered and monitored as a result of the on-the-ground surveys required by Paragraph 41 of this Appendix; aerial surveys required by Paragraph 43 of this Appendix; or notifications through a One-Call System;
- e. a summary of all actions that Shell has taken to comply with Section VII of the Appendix including:
 1. the location of each EFRD installation;

2. the type or specification of the EFRD installed, including remote operator;
and
 3. Shell's analysis for installing the EFRD at the location selected;
- f. a summary of all actions that Shell has taken to comply with Section VIII of the Appendix regarding testing of, and corrective action for the computational pipeline monitoring system including:
1. all tests conducted; and
 2. corrective action conducted;
- g. a summary of all actions that Shell has taken to comply with Section IX of the Appendix including:
1. revisions of Shell's written procedures and plans for training, operations, maintenance, and emergencies as such revisions relate to the Damage Prevention Program, and as appropriate; and
 2. third party Excavation Activity that Shell monitored and damage to the Pipeline that Shell identified during such monitoring;
- h. a summary of all actions that Shell has taken to comply with Section X of the Appendix including:
1. a brief description of the program and procedures to manage and review all Shell Pipeline Systems pressure, flow, and control setting changes on existing or newly installed protective and control devices; and
 2. the date of any revision to Shell's written procedures and plans for Shell Pipeline Systems to reflect each change, if any, to adjust pressure, flow, and control settings for existing and newly installed protective and control devices;

- 1 i. a summary of all actions that Shell has taken to comply with Section XI of the
2 Appendix including:
- 3 1. revisions of Shell's written procedures and plans for SCADA controller
4 training;
- 5 2. the specific training, training review, and testing conducted for each of
6 Shell's SCADA controllers; and
- 7 3. the name and job description of the SCADA Controller Training
8 Coordinator, the date that the SCADA Controller Training Coordinator
9 commenced and ended his or her duties, and the name, job description,
10 and the date duties commenced and ended, of any replacement SCADA
11 Controller Training Coordinator; and
- 12 j. a Schedule Exception List of all actions that Shell was required to complete
13 during the Semester but which Shell did not complete within the time period
14 required by this Appendix. For each action identified in the Schedule Exception
15 List, Shell shall:
- 16 1. briefly explain why the action was not timely completed, including
17 whether or not Shell claims that a *force majeure* event as defined in
18 Section XII of the Consent Decree prevented timely completion;
- 19 2. state an anticipated completion date for the action; and
- 20 3. state whether or not an extension of the compliance date was requested
21 from EPA and, if so, any disposition of that request.

21 **XVI. EXHIBITS**

22 74. The following exhibits are attached to, and incorporated into this Appendix:

23 "Exhibit 1" is AGA Project PR-3-805.

24 "Exhibit 2" is API RP 1110.

25 "Exhibit 3" is API 1161.

26 APPENDIX A - CV02-1178R
Draft - December 27, 2002

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1 “Exhibit 4” is API RP 1130.

2 “Exhibit 5” is ASME B31.4-2002.

3 “Exhibit 6” is ASME B31G-1991.

4 “Exhibit 7” is NACE RP0169-2002.